

**Notice of Allowability**

Application No.

10/603,854

Examiner

Anatoly Vortman

Applicant(s)

UMEDA, TADASHI

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Replies of 1/24/06, 4/11/06 and decision on petition of 6/22/06.

2. ☒ The allowed claim(s) is/are 3 and 4 (renumbered 1 and 2, respectively).

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some\* c) ☐ None of the:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.

(b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_

4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other \_\_\_\_\_

Anatoly Vortman  
Primary Examiner  
Art Unit: 2835

### EXAMINER'S AMENDMENT

1. Applicant's petition filed on May 24, 2006 under 37 CFR 1.137(b) to revive the instant application has been granted on June 22, 2006. Therefore, the application has been revived and the prosecution is hereby reopened. Accordingly, the reply of January 24, 2006 to the non-final Office action of January 6, 2005 is accepted as having been unintentionally delayed. Further, Applicant's submission of April 11, 2006 cures the deficiencies recited in the Notice of Non-compliant Amendment of March 14, 2006. Therefore, the aforementioned reply of January 24, 2006 in conjunction with said submission of April 11, 2006 is being treated as a full and compliant reply to the aforementioned non-final Office action of January 6, 2005.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The following amendments to the application has been made in order to correct minor informalities:

***In the specification:***

p. 1, in the section "Background Of The Invention", line 5 of the section, [rages] has been replaced with --ranges--;

p.4, line 5 from the bottom of the page, [brown] has been replaced with --blown--;

p.8, line 11, [supported to] has been replaced with --supported by--.

***In the Abstract:***

line 4 of the Abstract, [supported to] has been replaced with --supported by--.

***In the claims:***

Claim 3, line 4 of the claim, [supported to] has been replaced with --supported by--.

3. The following changes to the drawings should be made by Applicant: Figures 1, 2, and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. In order to avoid abandonment of the application, applicant must make these above drawing changes.

4. The following is an examiner's statement of reasons for allowance: the allowability resides in the overall structure of the device as recited in independent claim 3, and at least in part, because the claim recites: "said first and second spheroidal concaves being disposed side by side along a longitudinal direction of said casing and partially overlapping each other in the longitudinal direction of said casing in such a manner that inner foci of said concaves are overlapped with each other". The aforementioned limitations in combination with all remaining

limitations of claim 3, are believed to render the claim and claim 4 dependent therefrom patentable over the art of record.

**US/5,889,458 to Nakamura** (of record) is considered to be the closest reference to the present invention, disclosed (Fig. 1) a fuse assembly comprising: an electrically insulating hollow casing (27) of a substantially rectangular parallelepiped shape in outline; a fuse element (25) provided within said casing (27) and supported by said casing; said casing having first and second spherical concaves (35a, 35b) provided therein for facilitating reflecting and converging of shock waves into focuses at the time when an arc discharge is generated due to blowing of said fuse element (25) and said shock waves are then produced; said first and second spheroidal concaves (35a, 35b) being disposed opposite to each other along a longitudinal direction of said casing and a pair of spaced apart electrodes (23a, 23b) provided at both ends of said casing (27); said fuse element (25) being electrically connected to said spaced apart electrodes (35a, 35b) and bridged between said spaced apart electrodes, but did not disclose that the first and second spheroidal concaves being disposed side by side along a longitudinal direction of said casing and partially overlapping each other in the longitudinal direction of said casing in such a manner that inner foci of said concaves are overlapped with each other, as recited in the independent claim 3 of the instant application.

The following new reference has been also cited by the Examiner as pertinent to the present invention:

US/3,851,290 to Stover et al. teaches desirability of focusing shock waves for distinguishing an arc in a fuse (column 2, lines 38-41). Stover, however does not teach the first

and second spheroidal concaves being disposed side by side along a longitudinal direction of the fuse casing, as recited in claim 3 of the instant application.

None of the references cited during prosecution of the instant application, either taken alone or in combination, is believed to render the present invention unpatentable as claimed.

5. Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 571-272-2047. The examiner can normally be reached on Monday-Friday, between 10:00 am and 6:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Lynn Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/603,854

Page 6

Art Unit: 2835

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AV

A handwritten signature in black ink, appearing to read 'A. Vortman', with a long, sweeping horizontal stroke extending to the right.

Anatoly Vortman  
Primary Examiner  
Art Unit 2835